ABSTRACT OF THE DISCLOSURE

In one aspect, the present invention is directed to a technique of and layout for reducing, minimizing and/or eliminating crosstalk between adjacent differential signal pairs in communications systems employing differential signaling. In one embodiment, present invention is a backplane for a communications system, wherein the backplane includes a plurality of differential signal line pairs, including a first differential signal line pair having a first differential signal line and a second differential signal line. Each differential signal line pair provides a communications path for a differential signal pair including a first signal and a second signal wherein the first and second signals are differential signals. The backplane, in this aspect of the present invention, a first differential signal line is connected between the first and second vias to provide a communications path for the first signal of a first differential signal pair. A second differential signal line is connected between the third and fourth vias to provide a communications path for the second signal of the first differential signal pair. Further, a third signal line is connected between fifth and sixth via to provide a communications path for a third signal. The first via is spatially located or position adjacent to the fifth via such that a signal on the third signal line is coupled to the first signal and wherein the fourth via is spatially located adjacent to the sixth via such that the signal on the third signal line is coupled to the second signal. The coupling between the first signal and the third signal may equal or substantially equal to the coupling between the second signal and third signal. In those situations where the amount or impact of crosstalk between an third signal is neither equal nor substantially equal, the technique and layout of the present invention may still reduce and/or minimize crosstalk on the differential signals; and as such, it is intended that such situations fall within the scope of the present invention.